pleasure of announcing a discovery of my own. On May 28th and June 25th, 1881, I detected *Arceuthobium pusillum*, Peck, growing very abundantly on *Abies nigra* in the Graefenberg swamps on the heights of Frankfort, Herkimer County, N. Y., about six miles S. E. of Utica. My surprise was great, inasmuch as the same region had been most thoroughly explored years ago, as shown by the record in Paine's Catalogue. Prof. Asa Gray, Drs. Vasey and Knieskern, John A. Paine, Jr., Edwin Hunt and others were all probably well acquainted with the locality, and it is truly remarkable that the plant should have been overlooked by them, since its great abundance now, indicates that it has had its home there for years. Suspicion alone on my part led to its discovery. I had received specimens from Oswego County from my friend Rev. J. H. Wibbe, and, when his locality was made known to me, I suspected that the plant might grow nearer home. In 1879 I looked for it in N. Herkimer and Hamilton Counties but failed to find it; but last year I made a special effort and succeeded. It was an easy discovery, however, as almost the first spruce that I examined was literally covered with it. The pistillate plants were the most abundant, and some of them measured nearly an inch in length. The plants were not confined to stunted trees, but were found sparingly on the lower branches of healthy ones. I noticed that all growths of from five to fifteen feet high were favored, especially where the tops had been broken off; and new shoots in a circle at the tops were completely covered. I thought at the time that *Abies alba* and *A. balsamea* might be affected in the same way, but was prevented by ill health from making the investigation, and was unable for the same reason to discover any other station. As, in this immediate vicinity, there are other localities almost identical, I think that another season will show the plant to be more widely distributed, and to grow in Oneida County as well.

Utica, N. Y. JOSEPH V. HABERER.

Note on Oregon Grasses.—The two grasses here named were collected by Mr. C. G. Pringle at Roseburg, Oregon, Oct. 2d, 1881.

Gastridium australe, P. B. (Thurber in Bot. Cal. ii, page 275).—Dr. Thurber states, upon the authority of Mr. Bolander, that this grass is common in California on the coast, and "late in the season covers the dry hills everywhere." I am not aware of any record having been made of its occurrence in Oregon.

Aristida oligantha, Mx. (Gray., Man. 5th ed., p. 618).—The awns are a little shorter than in specimens from the Eastern States, and both the glumes and florets are deeply colored with purple. This grass has not before been reported west of Colorado.

F. LAMSON SCRIBNER.

Design of some Leaf-forms.—Most aquatic plants are so formed that they offer but little resistance to moving waters. Many species of *Potamogeton*, *Isoetes*, *Chara*, *Nitella*, and algae have filiform leaves or stems (or both), which offer but little resistance to changing currents of water. *Ranunculus aquatilis* and *Potamogeton* (a dozen

species) have filiform leaves below the surface of the water, and spreading leaves above. The floating heart, frog's-bit, duck-weed, pond-lily, *Marsilia*, etc., with their hanging roots, or slender stems, present no opposing surface to water. *Polygonum aquaticum*, with its float-like leaves at the ends of long and slender petioles, is not likely to be torn from its place of growth, however swift the current.

The form and arrangement of the leaves of conifers and heaths are well adapted to wind-swept regions. The conifers grow in the highest Alpine regions the world over, where they are subjected to the most violent winds and storms; but their leaves, being so very small and unusually well secured to the branches, offer but little resistance to the winds. The winds that set the oaks, elms and maples in an uproar pass over the pine, larch, and spruce with a whisper. On the wind-swept moors and downs of England the fine-leaved heaths grow in the greatest profusion.

Possibly it might be worth while for some botanists to consider why each family or species of plants has leaves of a shape peculiar to itself, and why some other form would not do as well, keeping in view the plant's place of growth and the work it has to do. The function of leaves as depositories of food and moisture, and that of bulb-scales, bud-scales, spines, tendrils, pitchers, fly-traps, etc., has been well explained, but are there not some other interesting generalizations that are known to some botanists and which have not been made known to botanists at large?

The thick and glossy leaves of the Ericaceae, the much-divided leaves of the Umbelliferae, the thick and succulent leaves of many salt-marsh plants, and other well-known facts, suggest questions which are not easily answered in a satisfactory manner by one man; but, by the mouths of many witnesses, the design of some leaf-forms may be established.

Do the rings of beets show growth during any definite period of time?

Roxbury. Mass. H. L. CLAPP.

Gleanings in Westchester County.—In October, 1880, I stumbled upon a small cluster of *Aster amethystinus*, Nutt., about half a mile North of Wood-Lawn Cemetery, on a new road leading to Mount Vernon. Several species of *Aster* were growing near by, but I failed to find this one in any other place, though I searched for it through fields and along road-sides for a mile or more around.

In July, 1881, I found *Scirpus sylvaticus*, L., and *Melanthium Virginicum*, L., in a small bog about a mile East of Tarrytown. In neglected yards and gardens within the village proper, *Galinsoga parviflora*, Cav., has appeared in profusion, but as a recent interloper.

Yonkers, N. Y. E. C. HOWE,

A Query.—Can any reader of the BULLETIN forward proof that *Carex Knieskernii*, Dew., is a good species? Dr. Gray, in comparing it with *C. Sullivantii*, says: "Perigynia glabrous and more evidently nerved." Dewey (in Wood) refers to an "oblong achenium." Now, *C. Sullivantii* has an oblong achenium, but it is always abortive. Dr.